

THE CHASSEPOT RIFLE.

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THE SYDNEY MORNING HERALD, MONDAY, AUGUST 31, 1868.

from tube, inserted under the skin by a steel point, above which are a number of perforated holes, through which the water enters. The tube is driven into the earth by a "monkey," and the required depth, after which a sucker and rod is introduced into it, and the well is thus established. The tube was driven into the earth twenty feet. A discharge of sand was observed with the first jet, but the water soon arose clear to the surface.

M. PASTEUR'S MODE OF PRESERVING WINE BY the application of heat to it is found to work admirably in France. The process is as applicable to wine in bulk as to wine in bottle. The exposure of wine to 170 degrees Fahr. is sufficient to destroy all the germs, or the growth of the acetic fermentation, and thus the growth of microscopic organisms. This process is said to be superior to the preservation of wine by means of excluding the air, or by treating with alcohol, which are both apt to produce deterioration. So much is this new mode approved, however, that one firm at Bezieres is reported already to have heated from 220,000 to 330,000 gallons. M. Rossignol, of Orleans, has set up an apparatus which heats 140 gallons an hour at a cost of about 6d. for that quantity. It seems that M. Pasteur is careful to exclude the air from the vessels in which he operates, in order that the spirit and bouquet may not take advantage of any evaporation that might take place.

We have already pointed out the policy of attending to BLOOD IN THE BREEDING OF CATTLE. The reports we receive of the recent purchases of pedigree stock, by some of our first-class breeders, afford sufficient evidence that there is no lack of stud animals, and therefore no excuse for sticking to a bad kind. First-class bulls can now be obtained on very moderate terms. We have already expatiated on the merits of Royal Buttery, at Nepean Towers, and of Grand Prince, at Neotfield, who takes the place of Sineure, deceased. We understand now that a brother of the Grand Prince, from the Essenden herd, will soon be quartered near Sydney; and, further, Mr. Richard Ridge is about to tempt a young Buttery, from the Mount Denison stock, to unfold his wings at Windsor. This is going to be good.

THE SUGAR COMPANY's project for the Manning and Macleay may reasonably expect to meet with success. They simply propose to buy cane from the farmers, and to manufacture. This is the plan best for the farmers, and best for themselves. Supposing them to offer to take all the cane brought to them by certain parties at 15s. a ton, the growers would get a good price and the manufacturers a good profit. The cane does not cost much in actual growing—it is only that it occupies the ground a long time. The shares are at £2, which brings them within the range of most people. It seems that the projectors are already possessed of the necessary machinery, which they are about to fix upon some spot near Frederickton, provided the usual inducements are held out. Several capitalists are interested, and are out on their rounds to observe for themselves, and there can be little doubt that they will deposit their money wherever they discover the true signs of earnestness and industry. Provided the soil, situation, and climate are suitable, the farmers cannot do better than take advantage of the present season for planting. As to the suitability of the soil, they can have the best chemical advice by applying to the Agricultural Society of New South Wales; as to the suitability of situation and climate they will find other advisers—mainly their own common sense, enlightened by the observation of what is going on around.

THE STATISTICS OF AGRICULTURE collected in Queensland, and just published, show an increase of 7136 tons of land brought into cultivation during the past year, and a corresponding increase of 29 per cent. There has been a decrease in the imports of wheat, barley, oats, maize, hay and straw, potatoes and flour, to the value of £152,235, notwithstanding the wheat and flour have risen in price during the year to a very considerable extent. While the whole imports have diminished in value by £720,172, or at the rate of 29·18 per cent. on the imports of 1866, the exports have increased in value by £832,118, or at the rate of 60·88 per cent. on the exports of 1866. Of wool, 7,208,318lbs. more were shipped (50 per cent. increase) than were shipped in 1866; and of cotton 112,941 lbs., over 207,172 lbs.

INTERNATIONAL COINAGE.—A bill was recently introduced into the Congress of the United States for the purpose of assimilating the gold currency of the American Union to that of the French system, in pursuance of which resolution the Monetary Conference held last year in Paris, but the measure met with considerable opposition, principally from the commercial community in the United States, who feared that the introduction of the value of the gold coinage by about 3 per cent., would depriving any compensation for creditors whose interests would be affected by the change. It appears from a telegram just received from New York that this difficulty has been allayed without the necessity of amending so as to secure the adoption by the United States of the international system of coinage which is already in force over so large a portion of the European continent, and at the same time, inflicting any injury on the public faith.

TAXATION.—The Chancellor of the Exchequer has presented to the House of Commons a return showing the receipts, rates, and produce of taxation in each of the three kingdoms, for the years ending in the last 40 years. It appears that in 1829 there were no less than 127 articles in the customs tariff, being more than twelve times the present number. Tea was taxed at 100 per cent. and alcoholic liquors at 150 per cent. averaging 9s. 3d. per quart. Articles of food sent from abroad were taxed hundreds of thousands of pounds on being presented at our ports; materials of manufactures were taxed nearly £88,000, and duties as the condition of admission into this kingdom. Imported sent coastwards was taxed nearly \$1,000,000. Nearly \$6,000,000 of customs duties were charged and paid in that year on articles now exempt from duty; yet in 1868 the revenue realized from the excise and customs duties produced scarcely any more revenue than they do now. The excise duties readjusted, and with various articles released from taxation, and the stamp duties reduced, would save the Government millions of tax, producing a larger revenue than they did. Newspapers no longer pay sd. per copy, and such duties as those on pamphlets and advertisements are gone. So also, among what are technically termed "luxury taxes," the duties on foreign wines, spirits, &c. is reduced. But the produce of "taxes" is now swelled by the addition of Sir R. Peel's "gift," the income-tax. The post-office in 1829 and the post-roads in 1868 raised more than £1,511,000, whereas changed into a penny; book postage, money-orders, registration of letters—unknown when George IV. was King; the receipts of the department doubled, and the total revenue of the nation tripled. It might be said: This commendous return will certainly make us wish to be as we were. The five periods taken are the financial years ending the 5th of January, 1830, 1840, and 1860, and the 1st of March, 1868. The average annual revenue for the period 1830 has not varied much; it has been £22,451,338, £23,087,366, £22,172,556, £24,320,703, and £22,098,095. Large reductions of the duty have been made since 1830. In 1868 the revenue was £22,098,095, unequal—£17,403,397, £11,713,254, £14,985,867 (in 1850), £20,227,958 (in 1860), £20,691,917. Comparing 1850 and 1860, the produce of the Excise more than doubled itself in Ireland. The yield of stamps has grown from £1,000,000 in 1830 to £2,000,000 in 1868. The total revenue of the country has increased £7,012,555, £8,032,538, and £9,354,083. "Taxes" (land, assessed, income) produced £5,205,745, £5,361,821, £10,087,518 (income-tax introduced), £10,087,518, £10,087,518, £10,087,518. Post-office receipts—home, foreign, and colonial—have been £2,184,667, £2,300,763, £2,164,340, £2,014,656, and £2,411,673. In the year ending the 5th of January, 1868, the commission on money-orders produced £168,122.

ED, MONDAY, AUGUST 31, 1888.

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men could keep up their full strength on this Article. They did it, and thus it was defeated by the same vote as the second and eleventh had been—viz., 35 to 19. The next motion was one for a *sine die* adjournment. The anti-impeachers did not like this, but the other side was too strong for them, and it prevailed, at 140, by a vote of 34 to 16, the Court for the first of Andrew Johnson on the articles of impeachment presented at the second Session of the 40th Congress passed into history.—*New York Tribune*.

EXPERIMENTS IN FIRE-PROOF FLOORING.—A series of interesting fire-proof experiments were recently made on the grounds about to be occupied by the new building, and the results were published in the Press Works, at the corner of Reade and Broadway streets, New York. The experiments were made with a view of rendering the ordinary wood flooring impervious to action of fire. The trial was made upon and under a floor of about twelve feet square, raised about six feet by means of heavy posts, square, sunk into the ground. Upon these the square section underneath with strips of pine, set from two to three inches apart, and placed so as to retain a ceiling of plaster of Paris spread under the beams to a quarter of an inch below the strips, and one half-inch thick between the beams and the ceiling. Upon the plaster was placed ten sheet-iron tubes, the object being to enclose the bulk of the space between the beams. The remaining space between the tubes was then filled, and the upper side of the beams covered with the plaster of Paris. After allowing covered sufficient time to set, the floor boards were fixed and the plaster allowed to harden. Under this floor was lighted a fire, which was allowed to burn for four and a half hours. The result of this experiment was very successful. The plaster had cracked somewhat, but the beams were not at all injured. The fire and smoke did not pass through, no opening was made in the strips of pine. During the progress of the fire it was never so heated but that one could have stood almost barefooted on it without discomfort. In experimenting on a somewhat different description of flooring, where the strips were set against fire from the upper as well as the lower side, the result was equally as severe with the former trial. The protection in this instance was made against fire by fastening thin sheet-iron plates to the beams, and spreading a layer of plaster of Paris a quarter of an inch thick over the sheet iron before laying the wooden flooring. This floor was subjected to a test of six hours. For three hours a strong fire was kept burning under the floor, and the remaining three the fire was kept burning on the surface of the floor itself. On examination of the floor after the experiment was made it was found that no injury or no damage was done and the floor was comparatively unharmed.

TIME TABLES.
1868, AND UNTIL FURTHER NOTICE.

AND RICHMOND LINES.

—WEEK-DAYS.															Sunday	
Richmond, Marulan, & Intermediate Stations.															Trains.	
8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
pm.	pm.	pm.	pm.	pm.	pm.	pm.	pm.	pm.	pm.	pm.	pm.	pm.	pm.	pm.	pm.	pm.
3.0	4.30	5.0	6.30	6.30	7.0	10.0	11.30	1.30	3.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
3.0	4.36	..	5.36	6.36	7.0	10.0	11.40	..	5.0	6.5	8.0	9.0	10.0	11.0	12.0	1.0
3.10	4.40	..	5.40	6.40	7.10	10.10	11.50	..	5.10	7.0	8.10	9.10	10.10	11.10	12.10	1.10
3.16	4.46	..	5.46	6.46	7.16	10.16	11.56	..	5.16	7.16	8.16	9.16	10.16	11.16	12.16	1.16
3.25	4.55	..	5.55	6.55	7.25	10.25	12.0	..	5.25	7.25	8.25	9.25	10.25	11.25	12.25	1.25
..	5.30	..	6.57	7.57	..	10.30	..	..	5.30	7.30	8.30	9.30	10.30	11.30	12.30	1.30
..	5.38	..	7.10	..	10.48	12.30	..	..	5.38	7.38	8.38	9.38	10.38	11.38	12.38	1.38
..	5.45	..	7.11	..	10.55	12.32	..	..	5.45	7.45	8.45	9.45	10.45	11.45	12.45	1.45
..	5.52	..	7.15	..	11.02	12.39	..	..	5.52	7.52	8.52	9.52	10.52	11.52	12.52	1.52
..	6.10	..	..	..	..	12.38	10.0	..	6.10	..	..	..	..	..	..	..
..	6.19	..	..	..	..	12.47	10.09	..	6.19	..	..	..	..	..	..	..
..	6.32	..	..	..	..	12.59	10.21	..	6.32	..	..	..	..	..	..	..
..	6.47	..	..	..	..	1.03	10.36	..	6.47	..	..	..	..	..	..	..
..	10.0	..	..	..	..	..	..	..	10.0	..	..	..	..	..	..	..
..	6.10	..	..	..	..	12.38	10.0	..	6.10	..	..	..	..	..	..	..
..	6.42	..	..	..	..	13.10	10.32	..	6.42	..	..	..	..	..	..	..
..	7.3	..	..	..	..	13.28	10.50	..	7.3	..	..	..	..	..	..	..
..	7.14	..	..	..	..	13.30	10.52	..	7.14	..	..	..	..	..	..	..
..	7.30	13.45	11.07	..	7.30
..	8.55	14.14	11.35	..	8.55
..	8.59	14.18	11.39	..	8.59
..	8.59	14.18	11.39	..	8.59
..	9.0	9.0
..	9.10	9.10

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